



SWANA[®]

SOLID WASTE ASSOCIATION
of North America

1100 Wayne Ave. Suite 700
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June 14, 2007

Chairman John D. Dingell
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515-6115

Chairman Rick Boucher
Subcommittee on Energy and Air Quality
U.S. House of Representatives
Washington, DC 20515-6115

Re: Comments on Federal Portfolio Standards
(Submitted via Electronic Mail)

Dear Chairmen Dingell and Boucher:

On behalf of the Solid Waste Association of North America (SWANA), I would like to thank you for your leadership in addressing climate change and for the opportunity to respond to your letter dated May 24, 2007 concerning renewable portfolio standards. I am pleased to share with you SWANA's comments on what characteristics should guide the development of a federal renewable portfolio standard. SWANA is a not-for-profit professional association with over 7,500 members from both the public and private sectors of the solid waste industry. Our mission is to advance the practice of environmentally and economically sound management of municipal solid waste (MSW) in North America. We believe that improved solid waste management practices can significantly reduce the emission of greenhouse gases (GHG) that contribute to global warming and climate change.

SWANA supports a comprehensive, integrated approach to solid waste management that incorporates a broad range of waste reduction, recycling and energy recovery activities to reduce waste disposal and recover value from municipal solid waste. Our members work in all aspects of solid waste management including recycling, composting, landfill management, landfill gas recovery and utilization, waste-to-energy, collection, transfer and transport of solid wastes.

Concerning a federal renewable portfolio standard (RPS), SWANA believes any RPS must have the following characteristics:



- The RPS should not take the place of a renewable energy production tax credit or renewable energy production incentives, but serve as a companion to direct financial incentives in the form of tax savings for renewable energy production.
- The RPS should value landfill gas to energy and waste-to-energy (energy from the combustion of municipal solid waste) at the same level as other renewable energy resources.
- It should be fair in the treatment of different renewable energy resources and ensure that our country achieves a broad portfolio of renewable energy.
- The renewable attributes or renewable energy credits (RECs) should be unbundled so that the RECs do not necessarily have to be transferred to the power purchaser, but may be transferred to another party.

RPS Paired with the Production Tax Credit

An RPS is an advisable federal policy so long as it works with the current production incentives for renewable energy, such as the Section 45 renewable energy production tax credit (PTC), and does not serve as a replacement for these valuable incentives. A federal RPS should be paired with a long term extension of the Section 45 renewable energy PTC. This tax credit has demonstrated great financial benefits since its extension in the Energy Policy Act of 2005. The Renewable Energy Business Alliance estimates that between the passage of the Energy Policy Act and October 2006, 11,033 new renewable energy projects came online, creating 15,329 MW of electricity, and spurring 60,185 direct jobs. Of these projects, landfill gas projects produced 250 MW of electricity and waste-to-energy produced 230 MW of electricity. These numbers show that the PTC has been successful in adding renewable energy projects and increasing renewable energy production. Any federal RPS must not displace the PTC, but must work alongside it under a long term extension.

RPS Must Fully Value Landfill Gas and Waste-to-Energy

Landfill gas and waste-to-energy are both valuable resources for producing clean, renewable energy, and reducing greenhouse gas emissions. As reliable, baseload electricity generators, landfill gas and waste-to-energy are valuable parts of any renewable portfolio. Due to their environmental benefits in reducing fossil fuel reliance and greenhouse gas emissions, these technologies should be valued at the highest level in any RPS, and the MWs of electricity produced from these projects should be valued at the same amount as MWs of electricity produced from any other eligible renewable energy projects.

Landfill gas recovery and utilization provide valuable opportunities for GHG reduction. Landfill gas methane can be collected in high efficiency gas collection systems. The methane can then be destroyed by combusting the collected gas in flares, or using it as a fuel in engines or furnaces for energy recovery.

Landfill gas combusted in engine-generator sets can produce electricity. Alternatively the gas can be used directly as a fuel for heating or other industrial uses or can be further processed and used as a vehicle fuel. Currently, there are 423 operational landfill gas to energy projects in the

U.S., which create 1,180 megawatts (MW) of electricity and 235 million metric standard cubic feet per day (MMSCFD) of renewable fuel. However, there are many more landfills in the U.S. that have the potential to capture and utilize landfill gas. EPA identifies 570 candidate landfills that have the potential for landfill gas to energy projects, representing 1,370 MW of energy or 695 MMSCFD of fuel.

Waste-to-energy refers to the controlled combustion of solid waste in modern furnaces with state-of-the art pollution controls. The energy can be recovered in the form of electricity or steam. WTE is classified as a renewable energy source according to the Environmental Protection Agency and under the Energy Policy Act of 2005. The waste that is combusted by waste-to-energy facilities is primarily biomass, a renewable resource.

Waste-to-energy also offers significant potential for reducing GHG emissions. WTE offsets landfill methane emissions by diverting wastes from landfills. It also creates a clean source of energy that offsets energy produced from the burning of fossil fuels. Currently, there are 89 waste-to-energy facilities in the United States, producing 2,700 MW of electricity. Waste-to-energy has a long history of being a reliable energy source in the U.S. and around the world.

Waste-to-energy is a clean form of renewable energy. Under the Clean Air Act, waste-to-energy facilities meet very stringent air emission requirements using advanced control technology. According to EPA in 2003, U.S. waste-to-energy plants have shown "dramatic decreases" in air emissions, and produce electricity "with less environmental impact than almost any other source of electricity." EPA also estimates that waste-to-energy prevents the release of 33 million metric tons of carbon dioxide annually.

Achieving a Broad Renewable Portfolio

Any RPS must treat different renewable energy resources fairly and seek to attain a broad renewable portfolio that does not consist entirely of one or two technologies. The RPS should not specify percentages for particular technologies but should let the energy producer choose renewable energy from a free and open market. As aforementioned, both landfill gas and waste-to-energy are baseload power sources, meaning they produce a consistent, constant stream of electricity. This quality makes landfill gas and waste-to-energy a necessary complement to non-baseload power sources, such as wind and solar. A federal RPS must strive to treat all renewables fairly and ensure that the portfolio is not almost exclusively comprised of one or two renewable resources.

Allocation of RECs

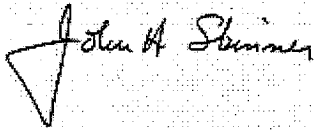
The renewable attributes, often known as RECs, should be unbundled so that power generators are not forced to transfer the RECs to power purchasers. The unbundling of RECs provides more opportunities for both the project owners and the retail providers. By creating greater options and flexibility for the generator and the purchaser, achieving the renewable portfolio standard is made less cumbersome. The renewable attributes should be allocated directly to the renewable power generator who should then be able to transfer the REC to any other energy

user. This allocation gives renewable energy projects greater freedom in the marketplace and leads to more renewable energy projects becoming financed and going online to produce power.

While a federal RPS can be an effective way to promote renewable energy, any RPS must be paired with a long term production tax credit, and it must include both landfill gas and waste-to-energy as eligible renewable energy generation projects. SWANA appreciates this opportunity to provide input on Congress's strategy to promote renewable energy. If there is any further information we can provide on this topic, please do not hesitate to contact us.

Again, thank you for your leadership on this very important issue.

Sincerely,

A handwritten signature in cursive script, reading "John A. Skinner". The signature is written in dark ink and is positioned above the typed name and title.

John Skinner, Ph.D
Executive Director and CEO
SWANA

Renewable Energy Power Projects Spurred by Passage of EPAct 2005

(added or under development as of 10/10/06, data assumes extension of EPAct tax incentives until project completion)

Technology	# of projects	MW of new capacity	FT Jobs Created¹	Jobs w/ Eco Multiplier²
Biomass (wood)	17	271 MW	1,623 jobs	3,246
Geothermal	54	2,209 MW	12,525 jobs	25,050
Hydro	37	612 MW	3,470 jobs	6,940
Landfill Gas	50	250 MW	1,498 jobs	2,996
Solar – CSP	10	2,500 MW	18,150 jobs	36,300
Solar-PV*	10,000+	1,000 MW	7,260 jobs	14,520
Waste-to-Energy	8	230 MW	1,378 jobs	2,756
Wind	125	7,800 MW	22,308 jobs	44,616
Coops/Pubic Power (CREBS**)	723	4,225 MW	18,696 jobs	37,392
TOTAL	11,024+	19,097 MW	86,908 direct jobs	173,816 total jobs

(*Solar PV are small distributed generation projects and it is difficult to estimate an accurate number of projects.)
(**Clean Renewable Energy Bonds – this category is a mix of renewable technologies not included above.)

Source: Estimate by the Renewable Energy Business Alliance based upon data provided by the American Public Power Association, American Wind Energy Association, USA Biomass Power Producers Alliance, Geothermal Energy Association, National Rural Electric Cooperative Association, Waste Management Inc., Solid Waste Association of North America, National Hydropower Association, Solar Energy Industries Association. October 11, 2006.

¹ For consistency, this estimate is based upon “EPRI 2001 Employment Rates” as reported in “Renewable Energy and Jobs” July 2003 by the Environment California Research and Policy Center. For Coops/Public Power an average of the EPRI wind and biomass rates was used. For Solar CPS and PV the cited PV job rates were used. For hydropower, an equivalent job creation rate to geothermal was assumed.

² Economic multipliers capture the impacts of indirect and induced economic development triggered by new projects. The value of the multiplier depends upon the size and characteristics of the economy considered. Nationwide, the economic multiplier effect of new geothermal power projects was estimated at 2.5 in Geothermal Industry Employment: Survey Results & Analysis by Nathanael Hance, September 2005. This means that each dollar invested in geothermal development will result in an output growth of \$2.5 for the U.S. economy. Statewide the multiplier is typically considered to range from 1.5 to 2. For purposes of this column a multiplier of 2 was assumed.